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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KENNETH BECK,
LEMONT BAKER, and
DONALD HOPPER

Appeal 2015-006252
Application 11/184,327
Technology Center 3700

Before MICHAEL L. HOELTER, JILL D. HILL, and
NATHAN A. ENGELS, *Administrative Patent Judges*.

HOELTER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is a decision on appeal, under 35 U.S.C. § 134(a), from a final rejection of claims 1 and 19–33. App. Br. 1. Claims 2–18 have been canceled. *See* Amendment mailed May 27, 2014. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

THE CLAIMED SUBJECT MATTER

The disclosed subject matter “pertains generally to measuring physiological activity, and more particularly, but not by way of limitation, to

methods and apparatus for monitoring physiological responses to steady state activity.” Spec. ¶ 1. Sole independent claim 1 is illustrative of the claims on appeal and is reproduced below:

1. A machine-assisted method comprising:
 - (a) detecting a physical activity signal, using an implantable medical device, from a human or animal subject;
 - (b) processing, using a processor, the physical activity signal to define a plurality of time periods of different steady-state activity levels, wherein the time periods of steady-state activity levels are defined by the detected physical activity being within a specified range;
 - (c) detecting a first steady-state physiological response signal, other than physical activity, from the subject, using the implantable medical device, to provide steady-state physiological first data values corresponding to the time periods of the different steady-state activity levels;
 - (d) detecting a second steady-state physiological response signal, other than physical activity and other than the first physiological response signal, from the subject, using the implantable medical device, to provide steady-state physiological second data values corresponding to the time periods of the different steady-state activity levels; and
 - (e) pairing, using the processor, the individual steady-state physiological first and second data values taken at like steady-state activity levels to form a first data set of paired data values at the different steady-state activity levels and to produce a representation of the first data values versus the second data values.

THE REJECTION ON APPEAL¹

Claims 1 and 19–33 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

ANALYSIS

Appellants argue all of the claims (i.e., claims 1 and 19–33) together. This is because, when separately addressing dependent claims 19–21, 23–26, 29, 30, and 33, Appellants do not proffer additional arguments regarding their respective additional limitations. *See* App. Br. 16–21. Instead, Appellants replicate the additional claim limitation and contend that this additional limitation provides an “additional meaningful limitation to the alleged abstract idea of ‘pairing . . . data values . . .’ of claim 1.”² App. Br. 17–21. Hence, Appellants’ argument for each of these dependent claims is an assertion (without additional explanation as to why this might be the case) predicated on the claim 1 limitation of “pairing.” Accordingly, we select claim 1 for review, with dependent claims 19–33 standing or falling therewith. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner rejects all the claims on appeal “because the claim(s) as a whole, considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea.”

¹ The Examiner also states, “[c]laims 1 and 19–33 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. [§] 101, set forth in this Office action.” Final Act. 2

² Our reviewing court has held “the Board reasonably interpreted Rule 41.37 to require more substantive arguments in an appeal brief than a mere recitation of the claim elements and a naked assertion that the corresponding elements were not found in the prior art.” *In re Lovin*, 652 F.3d 1349, 1357 (Fed. Cir. 2011)

Final Act. 2. More specifically, “[t]he claim(s) is/are directed to the abstract idea of a mathematical relationship or formula” and the additional elements, or combination of elements, “amount(s) to no more than[] mere instructions to implement the idea on a computer.” Final Act. 2. In other words, as per the Examiner, “these additional claim element(s) do not provide meaningful limitation(s) to transform the abstract idea into a patent eligible application of the abstract idea such that the claim(s) amounts to significantly more than the abstract idea itself.” Final Act. 2.

In the Appeal Brief, Appellants disagree with the Examiner’s rejection by relying specifically on “the 2014 Interim Guidance on Patent Subject Matter Eligibility.” App. Br. 10; *see also* App. Br. 11–16. This “Interim Guidance” addresses the Supreme Court’s decision of *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014).

As is known, a patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof,” 35 U.S.C. § 101, but “[l]aws of nature, natural phenomena, and abstract ideas are not patentable,” *Alice*, 134 S. Ct. at 2354 (internal quotation marks and citation omitted). *Alice* established a two-part framework for analyzing whether a patent claim is eligible under § 101. First, we determine whether the claims at issue are “‘directed to’ a patent-ineligible concept.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (quoting *Alice*, 134 S. Ct. at 2355). If the claims are determined to be directed to a patent-ineligible concept, we next consider whether “the particular elements of the claim, considered ‘both individually and as an ordered combination,’ . . . add enough to ‘transform the nature of

the claim’ into a patent-eligible application.” *Id.* (quoting *Alice*, 134 S. Ct. at 2355).

The parties do not dispute that the appealed claims are directed to “[a] machine-assisted method,” and hence a “process,” under 35 U.S.C. § 101. The question is whether the claims are directed to a patent-ineligible abstract idea as stated by the Examiner and disputed by Appellants. *See supra*.

The various steps of claim 1 are summarized as being directed to a method of detecting and processing different physical activity signals of a patient, detecting first and second physiological response signals associated with the previously mentioned activity signals, pairing these first and second response signals per the detected activity signal, and producing a representation of the resultant data sets. In short, claim 1 is directed to steps involving detecting, processing, further detecting, pairing, and then producing a report, with the only physical structure recited being “an implantable medical device” and “a processor,” as well as the “representation” (i.e., report) of the data ascertained.

Appellants state, “[a]s an initial matter, the Examiner has failed to identify which portion of the claims is directed to the ‘abstract idea of a mathematical relationship or formula’” and further, “the Examiner has failed to provide any evidence in the record to support such a finding.” App. Br. 13; *see also* Reply Br. 2. Regarding Appellants’ assertion concerning “which portion” of claim 1 is the abstract idea, the Examiner has rejected all of claim 1 as being directed to an abstract idea and that any additional elements or combination are “mere instructions” or “do not provide meaningful limitation(s) to transform the abstract idea into” patent eligible subject matter. Final Act. 2. Regarding Appellants’ assertion concerning

lack of “support,” the Examiner explained that the “pairing” of first and second values is analogous to the subject matter at issue in *Digitech Image Tech., LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014), as described in the USPTO’s 2014 Interim Guidance on Patent Subject Matter Eligibility, 79 FR 74618 (Dec. 16, 2014) (“Interim Guidance”).³
Ans. 2.

Appellants, for the sake of argument, assume “that the act of pairing data values can be considered a mathematical relationship.” App. Br. 13; Reply Br. 2. Consequently, under this assumption, Appellants acknowledge, “claim 1 can be considered to be directed to a judicial exception.”⁴ App. Br. 13; Reply Br. 2.

Such positions of patent-ineligible subject matter taken/assumed by the parties is consistent with instructions from our reviewing court that “collecting information, analyzing it, and displaying certain results of the collection and analysis” are “a familiar class of claims ‘directed to’ a patent-ineligible concept.” *Elec. Power Grp.*, 830 F.3d at 1353. We thus proceed to the second step set forth in *Alice*.

³ Appellants disagree with the Examiner’s reliance on *Digitech* contending that the recited “pairing” limitation is not “analogous to the digital image processing step” discussed in *Digitech*. Reply Br. 3. However, Appellants do not explain how the present “pairing” limitation fails to be analogous the discussed processing step in *Digitech* when the claim limitation at issue recites “pairing, *using a processor*” (emphasis added).

⁴ Our reviewing court has held that “analyzing information by steps people [can] go through in their minds, or by mathematical algorithms, without more . . . [are] mental processes within the abstract-idea category.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146 (Fed. Cir. 2016). Appellants do not dispute that “pairing” of data involves steps people can go through in their minds.

In addressing this second step discussed in *Alice*, Appellants replicate a portion of the “Interim Guidance” and highlight that portion stating, “[t]o be patent-eligible, a claim that is directed to a judicial exception must include additional features . . . such that it is more than a drafting effort designed to monopolize the exception.” App. Br. 14. Appellants contend that “claim 1 amounts to significantly more than ‘a drafting effort designed to monopolize’[] a mathematical operation.” App. Br. 14. As support, Appellants reference the cited steps of “using an implantable medical device” and “using a processor.”⁵ Appellants further contend, “[t]he **multiple** acts of detecting signals using an implantable medical device recited in claim 1 *add meaningful limitations* to the alleged mathematical relationship of ‘pairing.’” App. Br. 15 (italics added). Appellants further contend, “the **multiple** acts of detecting signals using an implantable medical device recited in claim 1 *add unconventional steps* that confine the claim to a particular useful application.”⁶ App. Br. 15 (italics added).

Appellants’ Specification describes the recited “medical device” in very general terms and states that it has a lead and electrodes (Spec. ¶ 51 and Fig. 5A; *see also* Spec. ¶ 52 and Fig. 5B for a “schematic illustration” of “the medical device 500 of FIG. 5A”) or that it employ sensors or an accelerometer (Spec. ¶ 30). Regarding the recited “processor,” Appellants’ Specification does not employ that term, but instead describes an “analysis

⁵ Appellants state, “claim 1 is tied to an implantable medical device” which is “distinct from what the courts have found to be abstract.” Reply Br. 3. Appellants’ contention is not persuasive for the reasons to be discussed.

⁶ On this point, the Examiner states, “it is noted that the use of an implantable medical device amounts to a well-understood, routine and conventional use in the field.” Ans. 3.

circuit 550.” Spec. ¶ 52; *see also* Fig. 5B. In other words, Appellants’ Specification only provides a high degree of generality to these claim terms. *See also* Ans. 2 (“Any tie to a processor in the claim is merely to a generic processor”), 3 (the medical “device is specified at a high level of generality”).

We are instructed by our reviewing court that “[i]f a patent uses generic computer components to implement an invention, it fails to recite an inventive concept under *Alice* step two.” *West View Research v. Audi*, 2017 WL 1299699, ¶ 3 (Fed. Cir. 4/19/2017) (citing, *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016)). In view of these instructions, whether analyzed individually or as an ordered combination, claim 1 recites conventional elements at a high level of generality, and such recitations do not constitute an inventive concept. *See In re TLI Commc’ns LLC v. Automotive, L.L.C.*, 823 F.3d 607, 614–15 (Fed. Cir. 2016) (cataloguing cases finding ineligibility under *Alice* step two where the claims recited “well-understood, routine, conventional activities previously known to the industry”). Furthermore, Appellants do not explain how, if a single act of implementing a generic device is insufficient to constitute an inventive concept, the implementation of multiple such acts would somehow be sufficient.⁷ Accordingly, Appellants’ contentions are not persuasive of Examiner error.

⁷ We further note (and agree with) the Examiner’s statement regarding Appellants’ contention concerning monopolization, i.e., “the claims recite the sensing of a physiological response signal, which, broadly comprising numerous types of physiological parameters, do indeed serve to monopolize the exception.” Ans. 3.

Appellants further contend, “the alleged mathematical relationship in claim 1 of ‘pairing . . . data values . . .’ is meaningfully limited by the inclusion of the ‘steady-state’ limitations.”⁸ App. Br. 15; *see also* Reply Br. 5–6. Appellants contend that the recitation to “steady-state” “ensures that transient [] signals, which can skew results and thus negatively affect data representations [] are not considered.” App. Br. 15–16. Appellants’ contention is not persuasive because Appellants do not explain how the selection of steady-state signals, so as to avoid transient signals, is more than “mere instructions” or is an element that provides a meaningful limitation “to transform the abstract idea into a patent eligible application of the abstract idea.” Final Act. 2.

We further note that as regarding any transformation of the data collected, we are instructed that absent more, “[d]ata are still data.” *Clarilogic v. Formfree Holdings*, 2017 WL 992528, ¶ 3 (Fed. Cir. 3/15/2017).

Appellants further contend, “the Examiner **failed to analyze the claims in accordance with the USPTO’s own guidelines** derived from the applicable caselaw.” Reply Br. 4. However, we note that the Final Office Action was mailed some months before the interim guidelines were first published in December of 2014. *See* App. Br. 10 (acknowledging that the Final Office Action mailed before the Interim Guidelines). We also note that in the Examiner’s Answer, the Examiner specifically referenced the December 2014 Interim Guidelines and the post-*Alice* §101 analysis in

⁸ Appellants state, “[g]enerally speaking, claim 1 is narrowly directed toward detection of physical activity signals, and steady-state physiological response signals.” Reply. Br. 3.

Digitech. Ans. 2–3. We are thus not persuaded by Appellants’ contention of Examiner error on this point.

Appellants further contend, “signal detection **is central to the purpose** of” the claimed device. Reply Br. 5. Even if true, Appellants do not address the Examiner’s rejection which is that the use of medical devices (“specified at a high level of generality”) for such detection merely adds “insignificant extrasolution activity” to the claims. Ans. 3. Appellants do not explain how using medical devices to detect signals (such detection purportedly being central to the claim), is significant extra-solution activity such that the claim is directed to statutory subject matter.

Accordingly, we are not persuaded the Examiner erred in rejecting claims 1 and 19–33 as being directed to non-statutory subject matter.

DECISION

The Examiner’s rejection of claims 1 and 19–33 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). See 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED